

REMARKS

INTRODUCTION

In accordance with the foregoing, claims 6 and 7 have been canceled and claims 1, 14 and 21 have been amended. Claims 1-5 and 8-21 are pending in the application. Reconsideration is respectfully requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102

Claims 14-21 were rejected under 35 U.S.C. 102(b) as being anticipated by Yamano et al. (U.S. Patent No. 4,750,102) (hereinafter "Yamano"). This rejection is traversed.

Yamano discloses a power converting apparatus that includes a rectifying means 7, transistors 8 and 9, diodes 3 and 4, capacitors 5 and 6, DC voltage detector 12, inverter 13, noise filter 14, comparator 19 and hysteresis comparator 23. Yamano, column 3, lines 46-68 and column 6, lines 11-20.

Amended claim 14 recites: "...a resistance selectively connectable between the AC power source and the DC conversion circuit." Support for this amendment may be found in original claim 21. In contrast to amended claim 14, Yamano does not disclose a resistance selectively connectable between the AC power source and the DC conversion circuit.

Claims 15-21 are dependent on claim 14 and are therefore believed to be allowable for the reasons discussed above.

Withdrawal of the foregoing rejection is requested.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103

Claims 1-13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Yamano et al. (U.S. Patent No. 4,750,102) in combination with Miura et al. (U.S. Patent No. 6,278,910) (hereinafter "Miura").

Miura discusses a compressor driving apparatus that includes an inverter 11, an inverter driver 12, a central processing unit (CPU) 13, a power supply 14, a storage circuit 15, a relay driver 16, a capacitor 18, a high voltage direct current power supply (HV-DC power supply) 19, an operating control circuit 20, a resistor 21 for suppressing inrush current and a relay 22. Miura, column 2, lines 48-58.

Amended claim 1 recites: “...a relay which selectively bypasses the limiting resistance, wherein the controller switches the relay to bypass the resistance when the output voltage reaches a predetermined voltage value, and switches the relay so that the resistance is not bypassed when the output voltage reaches the predetermined overvoltage limit.” Support for this amendment may be found in original claims 6 and 7. In contrast to amended claim 1, neither Yamano nor Miura, either alone or in combination discuss a relay which selectively bypasses the limiting resistance.

In Miura, when a voltage of the HV-DC power supply 19 reaches a predetermined value after the commercial power source 23 is switched on, the CPU 13, after a predetermined time delay, activates relay 22 via the relay driver 16 in order to short-circuit the resistor 21. As the result, the suppression of inrush current is terminated (i.e., the relay 22 is turned on).

In other words, Miura does not consider controlling the relay 22 to be turned off so as to allow any current to flow through the resistor 21 in the normal operation state thereafter. Unless a controller which allows the current due to the overvoltage to be dissipated by turning off the relay during an overvoltage period is provided to the combination of Yamato and Miura, it is impossible to obtain the advantage of the present invention, which reduces the number of the components of the motor power supply by utilizing the inrush current limiting resistor as a component of the overvoltage-protection circuit.

Claims 6 and 7 have been canceled. Claims 2-5 and 8-13 are dependent on claim 1 and are therefore believed to be allowable for the reasons discussed above. Further, claims 2-5 and 8-13 recite features that patentably distinguish over Yamano and Miura, taken either alone or in combination. For example, claim 2 recites that the DC-conversion part comprises a pair of capacitors which are respectively charged with positive and negative voltages from the AC power.

Withdrawal of the foregoing rejection is requested.

CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.


Respectfully submitted,

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